

U.S. Patent Application Serial No. **10/541,746**
Amendment filed January 20, 2010
Reply to OA dated October 26, 2009

AMENDMENTS TO THE CLAIMS:

Please cancel claims 3, 5 and 7 without prejudice or disclaimer, and amend claims 1, 2, 4, 6, 8, 19 and 37, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): An ocular lens material comprising at least one kind of a compound (A) having an ethylenically unsaturated group and polydimethylsiloxane structure through a urethane bond and at least one kind of a pyrrolidone derivative (B) selected from the group consisting of 1-alkyl-3-methylene-2-pyrrolidone, 1-alkyl-5-methylene-2-pyrrolidone, and 5-alkyl-3-methylene-2-pyrrolidone ~~in which a polymerizable group is a vinylidene group that includes a carbon atom of a pyrrolidone ring.~~

Claim 2 (Currently amended): An ocular lens material according to Claim 1, comprising 5 to 60 % by weight of the pyrrolidone derivatives ~~in which the polymerizable group is a vinylidene group that includes a carbon atom of a pyrrolidone ring.~~

Claim 3 (Canceled).

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Claim 4 (Currently amended): An ocular lens material according to Claim ~~[[3]]~~ 1, wherein the ~~1-alkyl-3-methylene-2-pyrrolidone~~ pyrrolidone derivative (B) is 1-methyl-3-methylene-2-pyrrolidone.

Claim 5 (Canceled).

Claim 6 (Currently amended): An ocular lens material according to Claim ~~[[5]]~~ 1, wherein the ~~1-alkyl-5-methylene-2-pyrrolidone~~ pyrrolidone derivative (B) is 1-methyl-5-methylene-2-pyrrolidone.

Claim 7 (Canceled).

Claim 8 (Currently amended): An ocular lens material according to Claim ~~[[7]]~~ 1, wherein the ~~5-alkyl-3-methylene-2-pyrrolidone~~ pyrrolidone derivative (B) is 5-methyl-3-methylene-2-pyrrolidone.

Claim 9 (Original): An ocular lens material according to Claim 1, wherein the repeating number of siloxane of the polydimethylsiloxane structure in a compound (A) having ethylenically unsaturated groups and polydimethylsiloxane structure through a urethane bond is 10 to 100.

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Claim 10 (Previously presented): An ocular lens material according to Claim 1, wherein tensile modulus is 0.2 to 0.8 MPa and stress relaxation under loading a fixed load for 30 seconds is 8 to 15 %.

Claim 11 (Previously presented): An ocular lens material according to Claim 1, wherein water content is 10 to 60 % by weight.

Claim 12 (Previously presented): An ocular lens material according to Claim 1, wherein water content is 32 to 55 % by weight.

Claim 13 (Original): An ocular lens material according to Claim 1, wherein (C) a silicone compound other than the compound (A) having ethylenically unsaturated groups and polydimethylsiloxane structure through a urethane bond is contained.

Claim 14 (Original): An ocular lens material according to Claim 13, wherein the silicone compound (C) is tris(trimethylsiloxy)silylpropyl (meth)acrylate.

Claim 15 (Previously presented): An ocular lens material according to Claim 1 or 13, wherein a N-substituted acrylamide (D) is further comprised.

Claim 16 (Original): An ocular lens material according to Claim 15, wherein the N-substituted acrylamide (D) is at least one of N-substituted acrylamides selected from the group consisting of N,N-dimethyl acrylamide, N,N-diethyl acrylamide, acryloyl morpholine, N-isopropyl acrylamide and N-(2-hydroxyethyl) acrylamide.

Claim 17 (Previously presented): An ocular lens material according to Claim 1 or 13, wherein at least one of a crosslinking agent is further comprised.

Claim 18 (Previously presented): A lens for the eyes comprising the ocular lens material according to Claim 1.

Claim 19 (Currently amended): A method for preparing an ocular lens material, comprising

a) a step of obtaining a mixed solution comprising at least one kind of a compound (A) having ethylenically unsaturated groups and polydimethylsiloxane structures through a urethane bond and a hydrophilic monomer (B) comprising at least one kind of a pyrrolidone derivative selected from the group consisting of 1-alkyl-3-methylene-2-pyrrolidone, 1-alkyl-5-methylene-2-pyrrolidone, and 5-alkyl-3-methylene-2-pyrrolidone ~~in which a polymerizable group is a vinylidene group that includes a carbon atom of a pyrrolidone ring~~ and a photo polymerization initiator and/or a thermal polymerization initiator,

b) a step of introducing said mixed solution to a mold,

c) a step of obtaining an ocular lens material cured by irradiating UV light on and/or heating the mixed solution in said mold,

d) a step of carrying out surface treatment to said ocular lens material after demolding said ocular lens material to impart hydrophilicity and deposit resistance,

e) a step of removing an unreacted component from said ocular lens material, and

f) a step of hydrating said ocular lens material.

Claim 20 (Previously presented): A method for preparing the ocular lens material according to Claim 19, wherein in the step of obtaining a mixed solution, the mixed solution further comprises a silicone compound (C) and an N-substituted acrylamide (D).

Claim 21 (Original): A method for preparing the ocular lens material according to Claim 19 or 20, containing a crosslinking agent in the mixed solution.

Claim 22 (Previously presented): A method for preparing the ocular lens material according to Claim 19 or 20, containing at least one of polymerizable or non polymerizable ultraviolet absorbents and/or at least one of polymerizable or non polymerizable dyes in the mixed solution.

Claim 23 (Previously presented): A method for preparing the ocular lens material according to Claim 19 or 20, comprising 0.1 to 5 % by weight of a water-soluble organic solvent.

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Claim 24 (Original): A method for preparing the ocular lens material according to Claim 23, wherein the water-soluble organic solvent is a water-soluble organic solvent selected from alcohols having 1 to 4 carbons, acetone, methyl ethyl ketone, dimethylformamide, dimethylsulfoxide, acetonitrile and N-methyl-2-pyrrolidone.

Claim 25 (Original): A method for preparing the ocular lens material according to Claim 19, wherein the surface treatment is plasma treatment.

Claim 26 (Original): A method for preparing the ocular lens material according to Claim 25, wherein oxygen or a mixture of oxygen is used in the plasma treatment.

Claim 27 (Original): A method for preparing the ocular lens material according to Claim 26, wherein a mixture of oxygen and water is used in the plasma treatment.

Claim 28 (Original): A method for preparing the ocular lens material according to Claim 26, wherein a mixture of oxygen and tetrafluoromethane is used in the plasma treatment.

Claim 29 (Original): A method for preparing the ocular lens material according to Claim 26, wherein a mixture of oxygen and organic silane is used in the plasma treatment.

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Claim 30 (Original): A method for preparing the ocular lens material according to Claim 29, wherein the organic silane is tetramethoxysilane.

Claim 31 (Original): A method for preparing the ocular lens material according to Claim 26, wherein a mixture of oxygen and methane is used in the plasma treatment.

Claim 32 (Original): A method for preparing the ocular lens material according to Claim 26, wherein a mixture of oxygen, nitrogen and methane is used in the plasma treatment.

Claim 33 (Original): A method for preparing the ocular lens material according to Claim 19, wherein the surface treatment is a treatment according to the coating method of a hydrophilic polymer coating.

Claim 34 (Original): A method for preparing the ocular lens material according to Claim 33, wherein the coating method is a plasma polymerization method of a hydrophilic monomer.

Claim 35 (Original): A method for preparing the ocular lens material according to Claim 33, wherein the coating method is a plasma-induced graft polymerization.

Claim 36 (Original): A method for preparing the ocular lens material according to Claim 19, further comprising (g) a step of coloring the ocular lens material by using a vat dye.

Claim 37 (Currently amended): A method for preparing an ocular lens material, comprising
a) a step of obtaining a mixed solution comprising at least one kind of a compound (A) having ethylenically unsaturated groups and polydimethylsiloxane structures through a urethane bond and a hydrophilic monomer (B) comprising at least one kind of a pyrrolidone derivative selected from the group consisting of 1-alkyl-3-methylene-2-pyrrolidone, 1-alkyl-5-methylene-2-pyrrolidone, and 5-alkyl-3-methylene-2-pyrrolidone ~~in which a polymerizable group is a vinylidene group that includes a carbon atom of a pyrrolidone ring~~ and a photo polymerization initiator and/or a thermal polymerization initiator,

b) a step of introducing said mixed solution to a mold,
c) a step of obtaining an ocular lens material cured by irradiating UV light on and/or heating the mixed solution in said mold,

d) a step of carrying out surface treatment to said ocular lens material after demolding said ocular lens material to impart hydrophilicity and deposit resistance, and

e) a step of removing an unreacted component from said ocular lens material and a step of hydrating said ocular lens material, at the same time by immersing in distilled water or a saline solution.